

Magic Wands Go Brrr

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replying to [James Poulos](#), “[Online Money, Money Online](#)”

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American Mind

Playing make-believe with money comes at a very real cost.

Well before Socrates, the ancient Greeks knew well the distinction between *nomos* (νόμος), the dense web of custom and law that shapes the lives of a people, and *physis* (φύσις), the order of things in the natural world, which includes humanity but would exist without it. Our own age has developed a tendency to scrutinize *nomos* with obsessive intensity, emphasizing the extent to which countless aspects of our world are socially constructed.

A popular trope based on this tendency holds that socially constructed entities, including money, are mere fictions by which we are deceived—“shared illusions,” in the common parlance. Such assertions are often made with an air of knowingness, as if the speaker imagines them to be especially insightful. Alternative perspectives, such as the possibility that money is more like an internet protocol—obviously socially constructed, and yet obviously real—seem not to have been considered.

A good example of the tendency is a [talk](#) by Alan Watts, now immortalized on YouTube, in which he describes the Great Depression as having been caused by an alleged confusion about the nature of money. Money, Watts lectures, is merely a unit of measure, like the inch. Therefore, allowing a lack of money to interfere with economic activity is simply crazy, as if a construction project were halted because the workers “ran out of inches.”

Because a dollar is only an invented measure, Watts argues, it isn’t real, and it can never actually “run out.” To ask “where the money is going to come from” for an important project is to commit a fallacy, leading to unnecessary pain. There was just as much wealth in the United States the year after the Great Depression began as there had been the year before, and those who imagined otherwise were subject to an illusion.

In fact, it is Watts who is confused, not the many millions who thought that something real had happened during the Great Depression and the many recessions that have followed. It is Watts who is engaging in a kind of magical thinking, and too many have followed his example. His argument, which turns on the assumption that real wealth is material and money is nothing but a measure of it, has a superficial cleverness but actually reveals a deep ignorance about how money works.

Even at the level of its basic functions, money serves as far more than merely a unit for measurement: it is also a medium of exchange, a means of discharging debts, and a store of value. These functions are mutually supporting, not mutually exclusive, and so

can sometimes be tricky to tease apart. But to see how money works, one should be aware of them all.

What Makes Money Tick

To be sure, as Watts suggested, money is indeed a unit. In the economics jargon it is called a “unit of account”: money establishes a standard unit, such as the dollar or pound, for the numerical measurement of the value of goods and services. This unit is then used in the formulation of prices for market transactions, including those involving debt.

Money serves as a “medium of exchange” when it intermediates transactions for goods and services, avoiding the need for barter and allowing dissimilar objects to be transacted in a common manner. When it is used make a payment in a deferred manner, discharging a debt previously incurred, money serves as a “means of discharging debts.” (One could view money’s function as a “medium of exchange” as simply the special case of “discharging a debt” in which the period of deferral is zero. As noted, the functions are not mutually exclusive.)

Finally, money serves as a “store of value” when it is held over time while remaining available and unimpaired for use in exchange. As an operational definition, we can say that money is any instrument that fulfills the above functions.

This operational definition describes money from a local perspective, in terms of what a single party might do with it. To understand the *importance* of money, however, we need a more global perspective on how money works socially. Fundamentally, money is a *social technology* that makes economic coordination possible via prices.

Prices encode knowledge about the scarcity and value of goods and services. When they are public, they convey that knowledge to market participants—both buyers and sellers. A process of price discovery takes place in which sellers, responding to the purchases of buyers, adjust prices toward the market clearing level, at which the amount buyers want to buy equals the amount sellers want to sell.

It’s easy enough to understand how this process works for the price of a single good; to make it intuitive, one can imagine an auction. In real markets, however, the process works across many goods and their complex supply-chain networks, dynamically taking into account factors such as the cost of increasing the supply of each good and the ease with which one good can be substituted for another. The price of a good communicates information not only about the good itself but also about the *opportunity cost* of buying it, which can guide purchasing decisions. When price discovery works well, goods are allocated and resources directed to the uses most valued by participants, with prices providing incentives for suppliers to move in and out of the market.

An important aspect of price discovery is that the knowledge of how prices, supply, and demand should adjust to clear the market is not present in any one location, much less possessed by any individual. In fact, this knowledge does not *even exist* prior to the process of voluntary transactions among the participants but instead is literally created through that distributed process. The participants face genuine choices as to what to buy, produce, and sell, and they often do not know what their choices will be until they make them. Production and exchange generate the price movements as well as being guided by them. Price discovery leads to a refinement of our earlier description: money is a *social technology for purposeful but unplanned economic coordination*.

The claim motivated by social constructionism that money is “not real” is wrong, as it would be for any technology. Consider a company whose computer system, essential for business operations, has suffered some catastrophic software failure. The unhappy CEO

might say, quite accurately, “our software is broken.” It’s true that the software is a human construction, not a part of the world dictated by the laws of physics. But that fact doesn’t make the failure any less real. This situation is a much closer analogy to what happens during a financial crisis than Watts’s construction workers standing around, absurdly complaining that they “ran out of inches.”

We Live In a Reality

The interpretation of money as “not real” reflects a deeper confusion about social constructs, with its desire to sweep all such entities into the broad category of fictions. This interpretation is plausible only in relation to a crude materialism; it reflects a scientific view more naively Newtonian than modern. In such a perspective, information, computation, and software would all be deemed “not real” because they are not material. The test of reality, however, is not materiality but causal efficacy, and that causal efficacy can be exercised within various levels of complex systems.

If we consider an entity to be any relatively stable structure of underlying processes, then we can say that higher-level entities emerge through the structured interactions of lower-level ones. Socially constructed entities, such as technologies, can then be just as real as biological cells or molecules, and for the same reason.

We’ve looked at the functions of money and how it works through the price mechanism, but we haven’t directly said what money is. Socrates took the question “what is it?” (τί ἐστὶ) to be the foundation of inquiry. What then is money?

Money is an entity socially posited by a community as a generalized form of value. The form of value must be generalized in the sense that it is stipulated to be commensurable with any good or service to be transacted in the market. One might question whether such a thing is possible, for it is not obvious that all goods are commensurable with each other. How indeed is a raven like a writing desk? And if there exists even one entity that is commensurable with all, then, by transitivity, all have been made commensurable with all.

One could be forgiven for feeling that generalized value seems like a kind of magic, but its reality becomes inevitable once one comprehends opportunity cost. A good has not only a value on its own (a *Gebrauchswert*, or use value, as Marx called it) but also an opportunity cost, the value of the best alternate foregone when choosing to acquire it. Because our resources are limited, and we must choose among goods, those goods *must* be traded off against each other in our evaluations, whether we like it or not. What the intellect may balk at, the will shall resolve; the belly sees to it. Hence, a good cannot be valued in isolation but only against the background of the many alternatives we face.

An entity posited as such a generalized form of value constitutes a standard measure of value, so that all other goods and services can be measured by it. The power of such a thing goes further than is immediately obvious. A standard measure of value makes possible a *ledger*, a record of transactions including both debts and credits. In fact, money itself is but one step from an abstract, public ledger. To see this correspondence, consider cash, a discrete token corresponding to some amount of money. Cash can be viewed as a credit recorded in such an abstract ledger. Cash identifies its holder as a creditor in relation to that ledger. The cash is not itself the credit relation, but rather a token identifying the party who stands in that credit relation. Conversely, any reliable public ledger could be used to issue tokens usable as money.

How does this understanding relate to our earlier discussion of the functions of money? Cash serves as a medium of exchange by facilitating the transfer of credit relations. When a good is purchased, the seller gives the good to the buyer, creating a momentary debt on the part of the buyer. A buyer who pays with cash cancels that debt by

transferring an equal credit (owed, as it were, by the ledger) to the seller.

While money itself corresponds to a public ledger, it also enables the construction of local ledgers to record the assets, liabilities, and transactions of market participants, whether individuals or companies. Such ledgers allow economic transactions and relations to be tracked over time, enabling resources to be deployed in the present and future deployments to be planned. From the highest vantage point, money is a protocol that enables humans to dynamically coordinate their actions using records structured by time.

The Limits of Magical Monetary Thinking

We are accustomed to fiat currency regimes in which the state monopolizes operation of the public ledger; in such a regime, it is state-backed credit that functions as money. Cryptocurrencies implemented on distributed ledgers are another possibility.

None of the above should be taken as a utopian vision in which monetary systems lead only to good outcomes, merely enabling ever-greater and more beneficial kinds and degrees of human coordination. On the contrary, money is a technology, and technologies can and do fail. It is at just such moments of breakdown that we become most critically aware of them. Money plays a role in most economic reversals, and entire monetary systems can fail, sometimes catastrophically.

To take the example that Watts uses, the Great Depression did indeed have something to do with money—not because of some absurd confusion about units, but because of the Federal Reserve’s monetary policy. From 1923 to 1928, the Federal Reserve created an expansion of the money supply that led to an uneven credit boom, with price inflation in real estate, stocks, and bonds. Here, the spectre of illusion invoked by the social constructionists comes genuinely into play, an illusion not of the reality of money but of increased demand across classes of goods. Credit expansions create just such an illusion, falsifying the information conveyed by prices and disrupting the coordination those prices provide. The result is increased investment in capital goods above what is actually demanded. When the Federal Reserve became concerned about the obvious inflation of stock prices and began to withdraw credit, the correction that followed took the form of a deep economic contraction. Precisely because the technology of money is real and does something real—allowing humans to encode, communicate, and coordinate with distributed information—its manipulation and distortion have real effects on human lives.

The error of exaggerated social constructionism is to believe that *nomos* is arbitrary. On the contrary, the *nomos* of a functioning society has an internal logic arrived at through strong selective pressures. It is magical thinking to suppose that social technologies can be freely moved in the space of imagined possibilities. It is most tempting to attempt such manipulation in times of stress. Alas, social technologies tend to break when manipulated contrary to their logic. I don’t worry about running out of inches. I worry about public officials, whether dimwitted clowns or highly credentialed technocrats, burning the rulers and ledgers.

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